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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,902	12/21/2000	Junichi Asada	201163US2S	6347

22850 7590 04/11/2002

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EXAMINER

CHU, CHRIS C

ART UNIT PAPER NUMBER

2815

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/740,902

Applicant(s)

ASADA, JUNICHI

Examiner

Chris C. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 3, 5, 6, 9, 11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 5, 6, 9, 11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

DETAILED ACTION

*Response to Amendment*

1. The amendment filed on January 28, 2002 has been received and entered in this office action.

*Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 ~ 3 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Oshino et al.

Regarding claim 1, Oshino et al. discloses in Figs. 1 and 2 a semiconductor device comprising:

- a semiconductor element (3);
- a plurality of lead wires (5) connected to a plurality of connecting electrodes (4) of said semiconductor element;
- at least a single dummy lead wire (5B, the left) that is not electrically connected to said semiconductor element and does not include an outer lead portion for

electrically connecting said semiconductor element to an external circuit of said semiconductor element;

- an insulating film (6) having an opening portion for accommodating said semiconductor element and serving to support said lead wires connected to the connecting electrodes of the semiconductor element and said dummy lead wire;
- said dummy lead wire (5B, the left) is arranged in a space having at least twice a minimum pitch of an arrangement of said lead wires; and
- a resin molding (7) covering a connecting portion between tip portions of the lead wires and the connecting electrodes and a tip portion of said dummy lead wire within the opening portion of said insulating film.

Regarding claim 2, Oshino et al. discloses in Fig. 1 the tip portion of the dummy lead wire (5B) covered with said resin molding (7) being positioned between a peripheral portion of said opening portion and a peripheral portion of the semiconductor element (3) arranged within the opening portion.

Regarding claim 3, Oshino et al. discloses in Fig. 1 the tip portion of said dummy lead wire (5A) extending over said semiconductor element.

Regarding claim 13, Oshino et al. discloses in Fig. 1 said semiconductor element including a dummy connection electrode (4A) that is not electrically connected to an internal circuit, and the tip of said dummy lead wire (5A) is connected to said dummy connection electrode.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshino et al. in view of Lamson et al.

Oshino et al. disclose in Fig. 1 at least two dummy lead wires (5B, the right) being arranged in said semiconductor device. Oshino et al. does not disclose tip portions of two adjacent dummy lead wires, which have no lead wires therebetween, being connected to each other. Lamson et al. discloses in Fig. 1 the tip portions (32) of two adjacent dummy lead wires, which have no lead wires therebetween, being connected to each other. It would have been obvious to one of ordinary skill in the art at the time of the present invention was made to use the connecting portion of Lamson et al. in the device of Oshino et al. in order to provide added support to the encapsulated package as taught by Lamson et al. in column 4, lines 1 and 2.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oshino et al. in view of Hartman.

Oshino et al. disclose in Fig. 1 said dummy lead wires (5B) being formed in two sides, which face each other, of said semiconductor element. Oshino et al. does not disclose tip portions of the dummy lead wires positioned to face each other being connected to each other so as to

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form a straight single dummy lead wire. Hartman discloses in Fig. 2 and column 5, lines 5 and 6 tip portions of lead wires (76) positioned to face each other being connected to each other so as to form a straight single lead wire. It would have been obvious to one of ordinary skill in the art at the time of the present invention was made to use the connecting portion of Hartman in the device of Oshino et al. in order to provide a crossover connection on a semiconductor substrate as taught by Hartman in column 2, lines 22 and 27.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1 – 3, 5, 6, 9, 11 and 13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris C. Chu whose telephone number is (703) 305-6194. The examiner can normally be reached on M-F (10:30 - 7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Chris C. Chu  
Examiner  
Art Unit 2815

c.c.  
April 5, 2002



EDDIE LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800